R E P O R T R E S U M E S

ED 018 536 VT 000 474

INTERSTATE PROJECT IN EVALUATION OF SECONDARY PROGRAMS IN VOCATIONAL ORNAMENTAL HORTICULTURE.

NEW YORK STATE EDUCATION DEPT., ALBANY
NEW HAMSHIRE UNIV., DURHAM, DEPT. OF AGR. EDUC.
NEW HAMPSHIRE STATE DEPT. OF EDUCATION, CONCORD

PUB DATE JAN 66

EDRS PRICE MF-$0.25 HC-$0.88 20P.

DESCRIPTORS- *PROGRAM EVALUATION, *GUIDELINES, *ORNAMENTAL HORTICULTURE, *VOCATIONAL AGRICULTURE, COOPERATIVE EDUCATION, HIGH SCHOOLS, EVALUATION CRITERIA, *PROGRAM PLANNING, CURRICULUM GUIDES,

MATERIALS DEVELOPED IN A PROJECT FOR EVALUATING VOCATIONAL ORNAMENTAL HORTICULTURE PROGRAMS IN SECONDARY SCHOOLS ARE GIVEN. PROGRAM PLANNING PROCEDURES DEVELOPED DURING STAGE I COVER (1) ESTABLISHING OBJECTIVES, (2) IDENTIFYING AND SELECTING STUDENTS, (3) PLANNING FACILITIES, (4) SECURING MATERIALS AND SUPPLIES, (5) COORDINATING COURSES WITH OTHER SUBJECTS, (6) ESTABLISHING WORK EXPERIENCE PROGRAMS, AND (7) USING COMMUNITY RESOURCES. A BIBLIOGRAPHY AND TOPIC OUTLINE FOR VOCATIONAL HORTICULTURE ARE GIVEN. PROCEDURES FOR EVALUATING THE ON-GOING PROGRAMS DEVELOPED DURING STAGE II COVER (1) CONGRUENCY OF THE PROGRAM WITH ITS OBJECTIVES, (2) STUDENT IDENTIFICATION AND SELECTION PRACTICES, (3) INSTRUCTION, (4) WORK EXPERIENCE PROGRAM, (5) FACILITIES AND THEIR UTILIZATION, AND (6) PROFESSIONAL IMPROVEMENT AND RELATIONSHIPS OF THE INSTRUCTIONAL STAFF. STAGE III, PROGRAM FEEDBACK THROUGH EVALUATION OF STUDENT PLACEMENT AND FOLLOWUP, WAS SCHEDULED FOR SPRING 1966. (EM)

ED018536

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

University of the State of New York
The State Education Department
Office of Research and Evaluation
Bureau of Research and Evaluation
in Occupational Education
Bureau of Agricultural Education

In Cooperation with

The Department of Agricultural Education
University of New Hampshire
and the
New Hampshire State Department of Education

INTERSTATE PROJECT IN EVALUATION OF SECONDARY PROGRAMS IN VOCATIONAL ORNAMENTAL HORTICULTURE

Stage I - Establishing Goals, Objectives, and Plans for New Programs, Spring, 1965

Stage II - Evaluation Instruction in On-Going Programs, Fall, 1965

Stage III - Program Feedback through Evaluation of Student Placement and Follow-up, Spring, 1966

(The following materials were developed in Stages I & II of the Project)

VT 004274

CONFERENCE ON EVALUATION IN
VOCATIONAL AGRICULTURE

PROGRAM PLANNING PROCEDURES

for

VOCATIONAL ORNAMENTAL HORTICULTURE

Establishing Goals and Objectives of Program

1. Consult employment service, growers associations, cooperative agents etc. to determine potential employers, type and location, and job mobility patterns in ornamental horticulture. How far from your program can you expect to fill job market demands, and on-the-job experiences?

2. Involve potential employees, cooperative extension agents, state supervisors, and higher education consultant resources as a consulting committee in defining immediate local program goals and objectives.

3. Obtain information from local, county, regional, state, interstate planning agencies to secure data on educational and employment needs and projecting population and building needs 5 - 10 - 15 years from now. Examination of this data may result in the establishment of a horticulture production program or one in the horticultural service occupations or both.

4. Identify post secondary educational opportunities, coordinate and articulate program goals for both terminal and potential post secondary students.

5. Program goals and objectives should provide for either a large range of student interest, abilities, readiness levels, or a more limited one. Differentiate program levels for students, i.e., early secondary, high school, adult or combination. Plan programs in relation to other operating programs - complementing and cooperating not competitive. The goals of the program should be consistent with master planning for all Vocational Education.

6. Identify skills, content, competencies and other instructional resources to determine how large starting program should be in terms of numbers of students and teachers.

7. Establish procedures for periodic review of goals and objectives with consulting committees and with other responsible persons.

Student Identification and Selection Practices

1. Relate program objectives stated in "goals" to potential student population to be served. Publicize and disseminate to employers, (individually and in groups), colleagues in school and feeder schools, students, parents, and counselors. Establish communications channels first.

2. Make sure that the people listed in item one in this section understand the following factors in the program:

   a. Content of ornamental horticulture program - how it differs from high school biology or botany and other courses.

   b. The kind of jobs and educational opportunities this program will lead to.

   c. The student selection characteristics and admission requirements related to the levels of the proposed program. There should be different admissions requirements for college preparatory, terminal students and/or disadvantaged youth.

3. Suggestions for orientation and guidance for students, parents and counselors.

   a. Meet with groups of students and parents before applications are received from feeder schools. Distribute samples of application forms.

   b. Design and distribute descriptive brochures to include required planned work experience programs.

   c. Arrange for school newspaper and commercial press review.

   d. Schedule small group visitations.

   e. Arrange for summer orientation program.

   f. Set up a year-round calendar of events to include guidance and public relations.

   g. Explain how arrangements are made for conducting required planned work experience programs both at the school laboratory and/or in commercial employment.

4. Suggested Criteria to be considered in selecting students.

   a. Occupational interest: As evidenced by hobbies, scouts, 4-H, family and other relatives employed in the field.

   b. Physical: Known manipulative skills, general good mental and physical health and stamina.

c. Work habits: Ability to follow through; work experiences and willingness to participate in the required planned work experience program.

d. Parents: Interest, influence, aspirations and cooperation.

e. Reading and Mathematics Skills: differentiated by levels of proposed program.

f. Grades to be used: only as indication of study habits and interests.

g. Recommendations: Previous teachers and others.

h. Interview: Horticultural teacher's interview of the potential student.

Facilities

1. Translate the program goals and objectives into facilities needed: land, laboratory, greenhouse space, classrooms, mechanics labratories, practice rooms, for the number of student stations anticipated. Differentiate according to the training objectives of the program. A minimum of one acre for nursery stock space is necessary to teach propagation, trimming, pruning, etc. to allow <u>all students an opportunity to participate</u>.

   Facilities should be planned to accommodate 20 students per laboratory section, considering school day, and number of teachers.

2. Plan for an expanding program; for a competent full-time foreman or a technical aid to maintain and operate all facilities and stock.

3. Develop a statement of needs relative to: costs, timetables of production, priority in terms of facilities. Consult with school administration and suppliers. Consider alternate building materials (ie glass vs. plastic) in use in the trade. Plan at least 100-150 sq. ft. per student in greenhouse space depending upon the type of program. Allow for adequate walk-space. Discourage "hobby" size greenhouses.

4. Provide for: a teachers office; classroom washing sinks; locker space; lavatory facilities; adequate water supplies.

5. Allow sufficient storage space for large and small materials, equipment, combustibles, and fire prevention apparatus, and others.

6. Provide for adequate ventilation and heating in the greenhouse storage area.

7. Provide for adequate storage and security of combustible and poisonous materials.

MATERIALS AND SUPPLIES

Paper & Plant

1. Order items in units in relation to most accurate projections and needs.

2. Differentiate supplies according to the program. Determine what instructional materials could better be developed locally, time permitting, vs. ordering commercially produced materials.

3. Plan supply orders in terms of time (chronological) when used. vs. storage space, use consulting committee in making out supply lists, and establishing priorities.

4. Involve local consulting committee in selecting suppliers. Don't overlook potential local suppliers.

5. Ask for what is needed to run a quality program, not by estimates of how much of a budget you can expect to get away with.

Coordination With Other Subjects

1. Inform teachers of other subjects as to your course content. Check their courses of study and lesson plans for interrelationships with ornamental horticulture. Compare content and chronology (when taught in school year) of English, business arithmetic, distributive education, science, industrial arts, fine arts, (drawing and design). Articulate these common or complementary subject matter areas and inform other teachers and supervisory personnel.

2. Identify (in large schools) where related electives such as Biology or Botany might be offered and make sure that the ornamental horticulture teacher relates his instruction to these other subjects.

3. Confer with the administrator doing master scheduling at appropriate times. Let him know of the special instructional problems and what possible electives or "tracks" of required subjects, if any, might conflict with and detract from the horticultural program. Let "feeder schools" coun-

selors know what electives should be included in students program.

4. Make sure "feeder schools'" (if half-day program) holiday schedules coincide. Check out transportation schedules before finalizing teaching schedule, coordinate team sport practice days, club-days, with after school horticultural program.

5. Coordinate your instruction content with that of higher educational institutions giving horticultural instruction. Don't wait for college faculty to come to you. If possible, get a higher educator representative on the consulting committees.

6. Take an active role in civic beautification, service clubs, merchants associations, garden clubs for Public Relations purposes, and source of support for your program and future adult program.

7. Plan for an active youth leadership training program for the horticultural pupils.

Required Planned Work Experience Program

1. Identify ahead of time the criteria for the planned work experiences in terms of the relationship to program goals.

2. Consulting committees can be valuable in terms of how, when, and where experiences should take place.

3. Allow for a range of student abilities and interests in setting up a job, project time requirements and multi-levels (if any) of program.

4. Work as closely as possible with other agencies placing students in work-study, community action and job corps programs when related activities can be tied in.

5. Provide for as large a portion of the planned experienced program as may be appropriate, to take place at the school site and during the school year and summer.

6. Allow sufficient time for supervision during school year and summer months. Make sure administrator understands what a vocational ornamental horticultural teacher's duties and responsibilities are. Allow for student time to plan as well as work.

7. Visit and approve business and industries for work experience programs in advance. Watch employer personalities as well as job content anaylsis.

8. Plan for the use of a memorandum of working agreement with students and employers.

Community Resources

1. Involve county agricultural agents, foresters, etc., consulting committee members, Horticultural business men as instructors in and out of class, as well as in the planning stages. Arrange for visiting lecturers - voluntary or reimbursed.

2. Establish and nurture professional personal contacts with resource people.

3. Arrange for yourself and your students to participate whenever possible in civic organizations and governmental agencies, for horticultural experience and leadership activities.

BIBLIOGRAPHY

A. Books

Phipps, Lloyd J. Handbook on Agricultural Education in Public Schools. Danville, Illinois: Interstate Printers and Publishers, Incorporated, 1965.

B. Publications of the Government, Learned Societies and Other Organizations

California State Polytechnic College. Nursery Practices. San Luis Obispo, California: Department of Agricultural Education, The College, 1962.

Clark, Raymond, et. al. The Land Laboratory. East Lansing, Michigan: College of Education, Michigan State University, 1963.

Dillon, Roy D. Comparison of Certain Abilities Needed by Workers in Licensed Nurseries and Licensed Ornamental Horticulture Businesses. Morehead, Kentucky: Division of Applied Arts, Morehead State College, 1965.

New York State Education Department. High School Programs in Ornamental Horticulture. Albany, New York: Bureau of Agricultural Education, The State Education Department, Undated.

New York State Education Department. Suggestions for Developing a Course of Study in Ornamental Horticulture. Albany, New York: Bureau of Secondary Curriculum Development, The State Education Department, 1965.

Ohio State Board of Education. An Example of a Course of Study for Vocational Horticulture. Columbus, Ohio: Vocational Agriculture Service, Division of Vocational Education, State Board of Education, Undated.

Ohio State Board of Education. Suggested Courses of Study for Vocational Horticulture Programs. Columbus, Ohio: Vocational Agriculture Service, Division of Vocational Education, State Board of Education, Undated.

Ohio State Board of Education. Suggested Guidelines for Vocational Horticulture Programs. Columbus, Ohio: Vocational Agriculture Service, Division of Vocational Education, State Board of Education, Undated.

The Ohio State University. Supervised Practice for High School Students of Vocational Agriculture with Limited Opportunities. Columbus, Ohio: Department Agricultural Education, The University, 1961.

The Pennsylvania State University. Suggested Course of Study for Vocational Agriculture in a Suburban Community. University Park, Pennsylvania: Teacher Education Series, Volume 3, Number 2, Department of Agricultural Education, College of Agriculture, The Pennsylvania State University, 1962.

C. Periodicals

Ball, John M. "Teaching Floriculture to Girls," The Agricultural Education Magazine, XXXVII (March, 1965), 213.

Dippold, Edward C. "There's a Place for Teaching Landscape Design," The Agricultural Education Magazine, XXXVII (September, 1964), 69.

Juestrich, Anthony. "A New Jersey Department Emphasizes Horticulture and Forestry," The Agricultural Education Magazine, XXXVII (September, 1964) 68.

Kopf, Robert A. "We Adjust Our Program to Urbanization," The Agricultural Education Magazine, XXXVII (September, 1964), 62.

Utsinger, James D. "Initiating Vocational Horticulture Programs in the Secondary Schools," Ohio Agricultural Education News, XVII (July, 1965), Supplement 1-4.

Walter, John C. "If You Add Horticulture," The Agricultural Education Magazine, XXXVII (September, 1964), 64

Yetman, George E. "What Employers in Ornamental Horticulture Want," The Agricultural Education Magazine, XXXVII (March, 1965), 224

D. Unpublished Materials

Kumpf, William A. "The Place of Ornamental Horticulture in the Secondary Schools of New York State." Unpublished Master's study, Cornell University, Ithaca, New York, 1950.

Lamb, Frank; King, William; and Finley, John. "The Vocational Competencies Needed for Greenhouse and Nursery Operations Found in Chittenden County, Vermont." Unpublished research paper.

Vocational Horticulture

A. Estate Management----------
   1. Job opportunities----------
   2. Aesthetic and economic importance of landscaping and home ground improvement----------
   3. Requirements of a landscaping plan----------
   4. Principles of the three landscaping areas----------
   5. Using trees in the landscaping plan----------
   6. Using lawns in the landscaping plan----------
   7. Using foundation plantings in the landscaping plan----------
   8. Locating drives, walks and other architectural features in the landscape plan----------
   9. Using gardens and other plantings in a landscape plan (vegetables, small fruit, rock garden, rose gardens etc.)----------
   10. Making the landscape plan or model----------
   11. Grading and providing drainage----------
   12. Improving the physical properties of the soil and the use of organic matter----------
   13. Testing soil samples of pH----------
   14. Using fertilizers----------
   15. Using mulches----------
   16. Establishing the lawn----------
   17. Maintenance of the lawn----------
   18. Plant structure, terminology and identification key----------
   19. Heighth, growth habits and uses of plants----------
   20. Selection of plant materials----------
   21. Securing and propagating plant materials----------
   22. Planting plant materials----------
   23. Pruning plant materials and tree maintenance----------
   24. Fertilization of plant materials----------
   25. Winter protection----------
   26. Controlling insects and diseases----------
   27. Controlling weeds----------

B. Floral Design
   1. Christmas Decorations
      a. Opportunities for part-time employment----------
      b. Selecting materials----------
      c. Making Christmas wreaths, sprays, arrangements and corsages----------
   2. Flowers in Season
      a. Job opportunities----------
      b. Principles of design----------
      c. Principles and use of color----------
      d. Selection and care of plant materials----------
      e. Selection of arrangement materials and accessories----------
      f. Constructing and using arrangements----------
      g. Constructing and using corsages----------
      h. Constructing and using floral pieces, wedding and funeral----------
      i. Retailing practices----------

Note: The seasonal allocation of the time may vary, but jobs 1 through 5 should be in sequence and precede other jobs.

C. Garden Equipment Shop Work
   a. Principles of small gasoline engine----------
   b. Maintenance and repair of small engines----------
   c. Selection, safe operation and maintenance of lawn mowers----------
   d. Selection, care and safe use of small garden tools----------
   e. Selection, care and safe use of sprayers and dusters----------
   f. Selection, care and safe use of landscaping equipment and power equipment----------
   g. Construction of lawn accessories----------
   h. Concrete construction----------

Vocational Horticulture - Greenhouse and Nursery Management

A. Garden Equipment and Shop Work
   1. Greenhouse and equipment construction----------
   2. Heating and plumbing----------
   3. Cold frame and starting structure construction----------

B. Greenhouse Plant Production
   1. Job opportunities in the greenhouse industry----------
   2. Biological structure and physiological processes of plants----------
   3. Propagating plants and plant breeding----------
   4. Environmental factors influencing plant growth----------
   5. Composition and use of greenhouse soils----------
   6. Soil sterilization----------
   7. Complete soil testing----------
   8. Liming and fertilizing----------
   9. Controlling insects and diseases----------
  10. First aid and safe use of chemicals----------
  11. Securing stock plants, cuttings, seeds, bulbs, and materials----------
  12. Greenhouse management and practice----------
      a. Watering----------
      b. Temperature and humidity control----------
      c. Transplanting, bedding and potting----------
      d. Pinching, disbudding, tying----------
      e. Forcing and shading----------
      f. Harvesting, grading, preparing for market----------
      g. Care of stock and bulbs----------
      h. Practice----------

Note: Seasonal allocation of time should be determined by the teacher, taking into consideration the types of plants to be grown in the greenhouse. Jobs 1-11 should generally be in sequence. Job 12 should be taught throughout the year. Chores in the greenhouse are planned for free periods where possible.

C. Nursery Management
   1. Soils
      a. Samples and testing----------
      b. Preparation of seedbed----------

2. Transplanting
   a. Lifting----------
   b. Spacing----------
   c. Setting by hand----------
   d. Setting by machine----------
   e. Watering----------
3. Starting plants----------
4. Growing plants----------
5. Insect and disease control----------
6. Rodent control----------
7. Herbicides----------
8. Exhibiting----------
9. Fumigating----------

Business Management and Marketing

A. Business
   1. Contracts and agreements----------
   2. Job estimate and pricing----------
   3. Local, state and federal trade and licensing regulations----------
   4. Labor regulations----------
   5. Insurance----------
   6. Securing credit and financing----------
   7. Record keeping----------
   8. Employee relations----------
   9. Purchase procedures----------
   10. Inventory----------

B. Marketing
   1. Preparation for Marketing
      a. Harvesting----------
      b. Handling----------
      c. Grading----------
      d. Bunching----------
      e. Balling----------
      f. Packing----------
      g. Tying----------
      h. Storing----------
      i. Containers----------
      j. Labeling----------
      k. Shipping----------
      l. Order slips----------

C. Marketing procedures
   1. Customer relations (Salesroom procedures)----------
   2. Buying----------
   3. Display----------
   4. Advertising----------
   5. Pricing----------
   6. Selling----------

Stage II - Evaluating Instruction in On-Going
Secondary Horticulture Programs

Albany, New York - Fall, 1965

I. Congruency of Program Operations with Stated Goals and Objectives of Local Programs.

A. To what extent and how often was planning data sought during the operating year from local, state and regional agencies on educational and employment needs?

B. Has this data been measured against the projected numbers of student graduates during the same period?

C. How often has feedback been provided, and what techniques have been utilized in informing these data supply agencies with information on the numbers and preparation of graduates and projected graduates from the program?

D. Has the program been examined to determine if significant changes in projected employment needs should reflect a re-examination of content emphasis? (An illustration would be from greenhouse production to ornamental landscape service in case of a local housing boom.)

E. Does an examination of admissions patterns of the program graduates identified as potential post-secondary students, indicate that greater differentiation in horticulture content, unit variety (academic preparative) and time allotment should be made to provide an optimum program for both terminal and post-secondary students? Perhaps college prep students need a reduction in horticulture instruction time to permit necessary academic electives to be scheduled into their programs.

F. Have projections of students in the program been validated in terms of:

(1) Enrollment (2) Holding Power (3) Transfer-In from other courses?

What are the implications for change in your goals and objectives if projections were inaccurate?

G. Are instruction and content geared to the original goals of training for practical job entry presently consistent with student objectives? Has the program become a "botanical science" course?

H. Do program objectives need to be reevaluated in light of student achievement vs. teacher expectency? Does the program permit students to under-achieve or is the teacher expectency level so high that students become discouraged due to complete lack of success?

I. How often and with what success were consulting committees and other resources used within the past operating year to actively review goals and objectives? Does the consulting committee composition reflect personnel and operations people as well as executives and proprietors (particularly in large firms)?

J. Do goals and objectives have sufficient flexibility to permit achievement of short-term training needs without sacrificing long range goals of educating for broad competencies and job mobility?

II. Evaluation of Student Identification and Selection Practices in an On-Going Program.

A. Are the number of student applicants from each feeder school in the quantities projected when the program was planned? If not:

1. Is the information provided to counselors updated as to employment and educational opportunities provided by the program?
2. Is counselor program bias recognized and are all media used to orient both students, parents and counselors as well?

B. Does the holding power of the program reflect the degree and accuracy of the pre-admission vocational counseling received?

C. Do selection practices in the feeder schools attempt to assess sincere student interest or are certain groups "sold" on horticulture? Is the horticulture teacher involved in orienting, interviewing, and admitting prospective students before the beginning of instruction?

D. Are the obligations of the Planned Work Experience Program fully understood by counselors, parents, and students before application is made? To what extent are reasons for student dropout or transfer out of the program, repeated disciplinary infractions and low achievement investigated and analyzed to provide a source of revision in guidance and student selection practices?

E. To what extent does the horticulture teacher initiate contacts with counselors and parents of students to appraise their achievement and progress in the program as a reflection of an appropriate vocational choice? Is the program sufficiently flexible to meet the individual needs and abilities of students being sent by feeder schools?

III. Evaluation of Instruction

A. Is the teacher making himself aware of continuously changing production and marketing techniques and utilizing these in revising content and time allotment in instruction?

B. Does the local course of study reflect current changes in production and service horticulture in the area? When was it considered for revision last by a joint meeting with the teacher and advisory committee.?

C. Is the course of study used as the basis for the teaching calendar and is it being followed?

D. Is the teaching calendar reflective of the seasonality of production and marketing? Is appropriate seasonal horticultural crop production changed as is necessary to illustrate different production and management techniques?

E. Is the teaching calendar realistic in length and depth in light of the total instructional time available?

F. Is the amount of time spent on theory and practice reflective of the competencies required by employers in different level jobs?

G. Are methods and materials appropriate and realistic to the instruction? Is the e over-utilization of the lecture method, are field visits utilized where more appropriate than prepared samples to illustrate materials? Is lesson preparation time spent in elaborate development of audiovisual materials when live materials are readily available. Are methods and materials appropriate to the field of horticulture being used?

H. Are appropriate clothing and equipment available, and are proper techniques used in orderly management of the facilities in order to provide for adequate health, safety, and sanitation?

I. Is instruction preplanned to provide opportunities for students to encounter and attempt to value typical operating and managerial problems?

J. Are budget, supply and material orders evaluated annually in terms of inventory, spoilage and changes in program emphasis, in order to provide sufficient quantities for enough practical application of theory to entry job skills needed?

E. Does evaluation measure the adequacy and appropriateness of student record keeping systems in detailing their planned experience program learning?

IV. Evaluation of Planned Experience Program

A. What is the adequacy of teacher selection of businesses for approval as cooperating centers for student experience? Is the teacher supervision regular and planned; are cooperative arrangements mutually satisfactory to employers, parents, students, and the teachers?

B. Do school-work student experiences reflect the necessity for the development of independent work values when <u>not</u> under close supervision, as well as a member of a crew, the reality of repetitive operations on the job, the simulation of production oriented commercial employment and the avoiding of excess seasonal and school decorative assignments and activities?

C. Is there provisions for formal assessment of the adequacy of staff and technical aides? Are these being utilized in helping to provide summer Work Experience Programs?

D. Are instruments to appraise student learning and progress

geared to measure the learning which should take place in the planned experience program?

E. How is feedback from employers participating in the planned experience program gathered, evaluated, and utilized to modify and make more meaningful the classroom and laboratory instruction?

F. Is the individual Planned Experience Program tailor-made to each student through consultation by teacher, pupil, parent and cooperating employer?

G. Are youth organizations of sufficient scope and direction to provide experiences in harmony with the objectives of the horticulture program?

V. Evaluation of Facilities and Their Utilization

A. (1) Are present goals and objectives as reflected in operating program and enrollment matched to determine adequacy of space?

(2) Common areas of evaluation would be seating and board space, heating ventilation and plumbing, utilities and their accessibility, lab, bench, table, and storage space.

B. (1) Does the location, exposure and layout of the greenhouse adequately serve program objectives?

(2) Are cropping practices planned around any facilities limitations?

C. Are efforts made to keep the facilities abreast of changing technologies in the trade?

D. Are provisions made for maximum safety in the use of all facilities and equipment, especially in terms of increasing or decreasing enrollments?

E. Are day-to-day housekeeping practices, particularly in sanitation, adequate? Are daily clean up chores regularly scheduled and assigned?

F. Are instructional materials, equipment, and supplies inventoried, classified and stored for maximum teaching efficiency?

G. Is the utilization of the facilities year-around consistent with local practices in the trade?

H. Is equipment adequate in terms of existing state recommendations, trade practices and suggestions by advisory committee? Does the equipment inventory reflect the necessary mechanical skills which should be taught in secondary ornamental horticulture?

I. Are locker, lavatory, and emergency facilities for students adequate in terms of present enrollments; is the growing trend toward enrollment of girls in horticulture reflected in facilities modification?

J. Do outlying horticulture building indicate connections of signal devices, public address systems, etc. to main school buildings?

VI. Professional Improvement and Relationships of Instructional Staff

I. Do the teachers join and support professional horticulture and community organizations?

II. Is the attendance of teachers at professional improvement conferences, workshops, trade shows, etc. reflected in better teaching practices?

III. Does the program supply budget provide for publications which will contribute to professional growth?

IV. Does the teacher evidence continuous professional growth as evidenced in continuing education, publication contributions, visitations to commercial establishments and, other high school programs?

V. Does evaluation measure effectiveness of the relationships with advisory committee as determined by their influence on program change?

VI. Does evaluation measure relationships with press, local radio and TV, and other communication media as well as local school administrators to inform and build public interest and support in programs?